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THE SOVIET STRATEGIC AIR AND MISSILE THREAT

- I. As a matter of priority concern to US security, intelligence community has recently completed new estimates on this general subject.
 - A. By "strategic threat" we mean Soviet capabilities for nuclear attack on:
 - 1. Nuclear delivery forces, population, and industrial penters in the US.
 - 2. [S and Allied retaliatory forces at sea and in overseas areas.
 - B. These Soviet capabilities undergoing major transition.
 - 1. Now rest primarily in long and medium range bombers with nuclear bombs, some with air-to-surface missiles.
 - 2. Bomber force probably now supplemented by ground-launched ballistic missiles and missile-launching submarines.
 - 3. Within next few years, ballistic missiles will become main plement in Soviet strategic threat.
- Designation of new Soviet capabilities with ballistic missiles.

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while evidence still inadequate to judge practice timing,

Graphic 1.

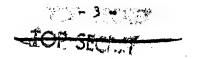
believe that for planning purposes should consider that
by 1 January 1960, USSR had initial operational capability
with a few (say, 10) series produced TCBMs.

- 1. Soviet ICBM probably capable of carrying 6,000 pound nuclear warbead Jubject to variation with nosecose configuration and distance it must travel.
- 2. CEPs under operational conditions no greater than 5 n.m. initially and may be between 3 and 5 n.m. Improvement to 3 n.m. in 1963 and 2 n.m. in 1966 considered feasible.
- 3. Reliability from time ICHM place i on lamnifer to detenation in vicinity of targets about 50 percent initially, impresable to 65-70 percent in 1943.
- h. Air Force intelligence believes Soviet TCPM characteristics will be considerably better than this (1960: CEP 3 n.m., reliability about 55 percent; 1963: CEP 2 n.m., reliability about 80 percent).
- B. For delivery of nuclear warheads against land targets at medium ranges, USSR has had 700 n.m. bellistic missiles available for the past few years, and we believe 1,100 n.m. missiles became operational in late 1958 or early 1959.

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- 1. Estimate that both types are in series production.
- 2. Believe troops have trained with both, and have incomclusive evidence of deployment of 700 n.m. missile units.
- C. A few conventionally-powered Soviet subminines how evaluated as probably capable of launching ballistic missiles with nuclear warheads, though not from a submarged position.
 - 1. One type of modified long-range submarine can probably carry two missiles of 200 n.m. or possibly 350 n.m. range.
 - 2. A newly-constructed class which was first identified in 1959 may carry about 5 missiles of 350 nome range.
 - 3. Based on real remember and technical payable inties, estimate that in 1961-1963 USSR will first enhieve a weapon system combining a nuclear-powered submarine with a 500-1,000 n.m. ballistic missile, capable of launching from submarged position.
- III. Jet medium and heavy bomber strength of Soviet Long Range Aviation remained virtually constant over past year.
 - A. Long Range Aviation now has about 1,100 BADGER jet medium bombers (Beh7 type) and about 125 BISON jet (Be52 type) and BEAR turboprop heavy bombers.
 - 1. BEAR production ceased some time ago, BADGER production ceased in about mid-1959, BISON production continues at a low rate (one to two a month in fall of 1959).



- 2. Obsolescent HILL piston medium bombers (B=29 type) retired repidly in the past year - probably now completely phased out of Long Range aviation units.
- Graphic 2. Long Range Aviation remains best suited to operations against Graphic 2.
 - 1. Majority of bombers are BABGERs capable of reaching most US targets only on one-way missions.
 - 2. From Arctic bases, refuelled BISONs could reach US targets on two-way missions --- REARs could do so without refuelling.
 - C. There are also several hundred BADGERs in Naval and Tactical Aviation, the former widely equipped with subscnio, 55 n.m. antishipping missiles.
 - B. In about 1961 USSR will probably have operational a supersonic sir-launched missile of at least 350 n.m. range, adaptable for use against land targets or ships at sea.
 - IV. Soviet rulers probably regard present forces as capable of inflicting appalling damage on US and Allied concentrations of population and industry, but as incapable of preventing, by military action, the nuclear devastation of the USSR.

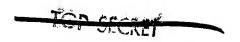
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- A. Because of US early warning and alert capabilities, Soviet rulers could not expect their bombers to reach targets in time to prevent large-scale retaliation.
- B. But Soviets probably believe present bomber force and emerging missile strength already constitutes powerful deterrent against US nuclear attack.
- C. Will seek to improve their deterrent and if pessibly to change the US-Soviet power relationship to their advantage.
- V. Future growth of Soviet intercentinental striking capabilities will be primarily a function of development, production, and deployment of ICBMs.
 - A. ICBM gives USSR best prospect of being able to deliver heavy weight of attack in time to prevent launching or reduce weight of US retaliatory attacks
 - B. Soviet planners will also consider that any substantial ICBM force will have important political and psychological effects, increasing with size of the ferce.
- VI. In absence of evidence on Soviet plans and programs, intelligence community has analysed the ICBM force goals the Soviets might establish over the next few years.

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- A. Calculations were made using intelligence estimates of
 Soviet ICBN characteristics -- nuclear payload, accuracy,
 reliability, in-commission rate -- and other data from
 appropriate government agencies:
 - 1. US plans and programs for retaliatory forces.
 - 2. Nuclear seapons effects data.
 - 3. Standard probability formulas.
- B. Object of calculations was to derive theoretical Soviet requirements for ICBMs on Launcher in each succeeding year:
 - 1. To give USSR high assurance of inflicting severe damage on all US retaliatory bases beyond the range of Soviet 1,100 n.m. missiles.
 - 2. To give USSR certain lesser capabilities which would still be strategically significant.
- C. Such calculations must be interpreted with caution.
 - 1. They deal only with Soviet requirements for ICEMs on launcher in the USSR -- do not constitute à net estimate of what would actually happen in the event of ware
 - 2. They include only those US targets suitable for ICEM attack (ilel, fixed installations) and exclude such US forces as airborne bombers and ships at sea.



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- initial salve capability (territors went planned fast reaction times of US forces) and a precision of timing which is imprebable in a complex operation in real life.
- h. They are especially sensitive to errors in our estimate of Soviet 103M accuracy and reliability and to changes in US plans and programs.
- 5. Nevertheless, believe that if the Soviets have made such calculations, the numbers arrived at would be on the same order as our calculations indicate.
- D. We then examined economic implications of Soviet ICBM pregrams which would meet various theoretical requirements.
 - Analysed physical and economic effort needed to produce sufficient missiles, build launching facilities, train units, and establish logistic support.
 - 2. Weighed potential military, political, and psychological gains to USSR against possible economic sacrifices required.
- vII. Analysis shows that in 1961 the USSR would have its most favorable opportunity, through rapid buildup in ICBMs, to gain decided military, political, and psychological advantage over the US.

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- After about that time, planned increase in semihardened and hardened US ICBN sites would result in steep increase in Soviet ICBN requirements.
- Be If Soviets achieved 400-500 ICBMs on launcher in mid-1961,
 USSR could attain:
 - 1. Very high assurance of being able to inflict severa damage on unhardened US retaliatory bases, including bembers on the ground.
 - 2. Considerably less assurance of severely damaging such bases plus hardened retaliatory bases.
- C. Soviets would probably not regard this as "decisive military superiority" -- would still have to expect retaliation from:
 - 1. Bombers on airborne alert.
 - 2. Semihardened and hardened ICBM sites.
 - 3. Carriers and missile-lawnohing submarines at sea.
- D. Soviets could achieve hoo-500 ICEMs en launcher in mid-1961 only through a "crash" production and deployment program.
 - 1. No indication that such a program now underway.
 - 2. Believe Soviet rulers would not make such a heavy investment in a program unlikely to be decisive.



- III. Present indications are that Soviet ICBM program, while not a "eresh" program, is designed to provide a substantial.

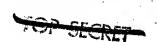
 108M capability at an early date.
 - A. Goel is probably a force as large as they think messsary
 for substantial deterrent and pre-captive attack capability.
 - I. This would be consistent with Soviet military doctrine, which describes pre-emptive attack as a strategy of seining initiative from an enemy who is himself pre-paring imminently to attack.
 - 2. Also consistent with present deliberate and orderly tempo of Soviet ICBM test firings.
 - And with Soviet policy of maintaining balance among various types of military forces.
 - B. Conclusion of USIB is that present Soviet ICBM pregram would provide some 1h0-200 ICBMs on launcher in mid-1961.
 - 1. Such a program could be undertaken, along with other military programs, without appreciably hindering present Soviet plans for industry and construction.
 - 2. Even to have the ICEMs enlimmeder in mideless would require a vigorous progrem to have 200 at that time would introduce considerably greater difficulties.
 - 3. Some difference of view in USIB within the 140-200
 range Army and Navy members favor 140 State and
 Joint Staff members favor high side Air member also
 favors high side, but should be noted that he estimates
 considerably better performance for Soviet ICBH than does
 majority.

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- Course of ICBM program beyond 1961 likely to be affected C. by changing technical capabilities in both USSE and US, and by developments in international mitmation.
 - l. Any projection must be reviewed in light of th factors and of evidence on actual Soviet ICEN press
 - 2. Our present estimate of Soviet ICHMs on Launcher is some 250-350 in mid-1962 and some 350-450 in mid-1965
- Through such a buildup, USSR would pregressively acquire D. the following theoretical expabilities with ICHMe:
 - 1. By late 1960, high assurance of being able to detonate a high-yield nuclear warhead over each of the 25 principal US metropolitan areas.
 - 2. Between late 1961 and mid-1962, very high assurance of being able to inflict severe damage on SAC bomber bases, including bombers on the ground.
 - 3. Between about the middle and end of 1962, very high assurance against such bases plus other unhardened retaliatory bases.
 - Soviet planners would probably regard such an ICBM buildup as giving them an increasingly substantial deterrent and pre-emptive attack capability.
 - Air Force intelligence disagrees with much of the feregoing analysis.

Graphic 3.

- 1. Believes Soviet leaders are attemptive to achieve capability for decision over the US through political exploitation of ICBN force or assual launching if necessary.
- 2. Assuming considerably better TCPM performance, ballares
 Soviets would have higher assurance against US realistory
 forces with comparable numbers of missiles.
- 3. Believes Soviets will continue high prierity buildup over the next five years, siming at 640 IOBMs on launcher in mid-1963 and 880 in mid-1964.
- IX. USSR should have no serious difficulty in producing and deploying sufficient medium range missiles to attack US and Allied nuclear delivery bases overseas.
 - A. We estimate they will have total of about 250 700 n.m. and l,100 n.m. missiles on launcher from 1961 through 1966.
 - B. They would probably build toward considerably larger stockpile of these missiles, for use subsequent to an initial blow.
- Graphic he warheads against large majority of critical Western targets in Europe and Asia.



- To the Soul of bostor stronges at 1 property reads relatively a section of two, and delice the readsor.
 - A. Bushire will continue to be weeful even after fermideble missile sepabilities acquired.
 - Indispensable for specialized missions which as attack on targets of uncertain leasting.
 - 2. Capable of searching out and attacking earriers at sea.
 - B. More advanced bombers may appear in the next few years, but current models will continue to ferm backbone of Soviet bomber force.
 - Co Probable Seviet advances in air-to-surface missiles will give bombers a stand-off espability against land targets and improve their performance against shipping.
- II. USER's missile submarines could hunch muclear warheads against selected targets in the US, although Soviet planning apparently does not accord them the main weight of an attack.

 Graphic 5.
 - A. Maximum wissile range estimated at 200-350 n.m. at present, will probably be 500-1,000 n.m. beginning in 1961-1963.
 - B. Present strength, estimated at about 10 conventionally powered missile subs, will probably double by 1961-1962.



- O. Medicarepowered sizelle subs will constitute a stailer only greater threat.
 - le Assemming an active program which brings this type intecervice in 1961, believe UBSR will have about it in eperation in 196ke
 - 2. With proper operating procedures and alternate errors, perhaps half this number could be deployed off US coasts at all times.

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Oraphic l. OSI chart on firings at Type Inn (T. S.)

Graphic 2. Meximum range capabilities of BADGER and Allice against the US (8.)

Oraphia 3. Estimated Soviet ICEM progress versus eslected on-launched requirements (2. 5.)

Oraphic he Maximum range espabilities of Seviet 700 and 1,100 moments bellistic mismiles against Europe and Asia (8.)

Graphic 5. Maximum range capabilities of Soviet sub-launched missiles against the US (8.)